

Open Solar Physics Questions - What can Orbiter do that could not be addressed by existing missions?

Solar Orbiter represents a revolutionary advance in observing the Sun. Orbiter will have optical and XUV telescopes that will deliver high-resolution images and spectra from vantage points that have never been possible before, close to the Sun and at high latitudes. At the same time, Orbiter will measure in situ the properties of the solar wind that originate from the observed solar photosphere and corona. In this presentation, I will describe how with its unique vantage points and capabilities, Orbiter will allow us to answer, for the first time, some of the major questions in solar physics, such as: Where does the slow wind originate? How do CMEs initiate and evolve? What is the heating mechanism in coronal loops.

This work was supported by NASA R&A program.